

3. That the *Pericardium* or the *Cafe* of the *Heart* being opened, there appeared none of that water, in which the *Heart* uses to swim; and the external Surface of it, from the *Base* to the *Tip*, was not smooth, but very rough. It being cut asunder, a quantity of white and inspissate liquour run out, and beneath the *Base*, between the right and left Ventricle, *two stones* were found, whereof the one was as bigg as an *Almond*, the other, *two Inches* long and *one* broad, having three *Auricles* or crisped *Angles*: And in the Orifice of the right Ventricle, there was a fleshy fattish Matter.

4. That the whole Body was bloudless, thin, and emaciated, of a black and bluish Colour.

5. The *Scull* being opened, both the *Cerebrum* and *Cerebellum* were bigg in proportion to the Body; and out of it run much more Bloud, than was seen in both the other Regions together.

### *Of the designed Progreſs to be made in the Breeding of Silkworms, and the Making of Silk, in France.*

The *French King Henry the Fourth*, having made a general Establishment all over *France*, of planting and propagating of *Mulberry-trees*, and *Breeding of Silkworms*, in order to set up and entertain a *Silktrade* there; and having prospered so well in that Design, that in many parts of his Dominions great store of such Trees were raised, and Multitudes of Silk-works propagated, to the great benefit of the *French* people, forasmuch as it was a considerable beginning to avoid the transport of several Millions abroad for buying of Silks, and withall an excellent means of well-employing abundance of poor Orphans and Widows, and many old, lame, and other indigent and helpless people; The present *French King*, hath lately revived and seconded that Undertaking, by giving express order, that it should be promoted by all possible means, and particularly in the *Metropolis* of that Kingdom, and round about it; and that for that end the whole way concerning that Work and

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Trade should be fully and punctually communicated in Print; which hath also been executed by one *Monsieur Isnard*, in a Treatise published at *Paris*, in *French*, Intituled, *Instructions for the Planting of White Mulberryes, the Breeding of Silkworms, and the Ordering of Silk in Paris, and the circumjacent Places*. In which Book, the Method being represented, which that Great Prince *Henry IV.* used in establishing the said Work and Trade, together with the success thereof, and the advantages thence derived to his Subjects, the *Author*, from his own *Experience*, and long *Practice*, delivers (and seems to do it candidly) all what belongs in this business in four main heads. *First*, he teaches the Means of sowing, planting, and raising *White Mulberryes* (as the Foundation of Silkworks) shewing how many several wayes *that* may be done. *Secondly*, The Breeding of *Silkworms*, the choosing of good Eggs, and their hatching, as also the Feeding of the *Worms*, and preserving them from Sickness, and Curing them of it, together with the way of making them spin to best advantage. *Thirdly*, The manner of winding their Silk from their Bottoms, adding the *Scheme* of the *Instrument* serving for that purpose. *Fourthly*, The way of *keeping Silkworms* Eggs for the ensuing year.

Through the whole Book are scattered many not inconsiderable particulars, though perhaps known to most. The *White Mulberry Tree*, as it is in other qualities preferable to the *Black*, so this *Author* esteems it the best, not onely for the durableness of the wood, and its large extent of usefulness in Carpentry and Joyners work; but also for the fitness of its leaves (besides their principal use for the food of *Silkworms*) to fatten Sheep, Goats, Cows, and Hogs, only by boiling and mingling them with Bran. The *Berryes* themselves he commends as very excellent to fatten Poultry, and to make them lay Eggs plentifully. In the *Changes. Working, and Generation* of this *Insect*, he is very curious to observe many things. Their *Metamorphoses*, as is known, are four, whereof the form of the one hath no conformity with any of the rest. The first from an Egge (of the bigness of a Mustard-seed, and of a darkish Gray Colour, when good) to a *Worm* or *Caterpillar*, but of a domestic, noble, and profitable kind; *Black*, when it first comes forth

forth, but growing *white* at last; having 24. feet, 8. on each side of the body, and 4. besides, close to each side of the head. During this form, they undergo constantly 4. Sicknesse, in which they cast their Skins, each sickness lasting about 4. days, wherein they feed not at all; but grow clearer, shorter, and thicker. The second, from a *Worm* to an *Aurelia* or *Chrysalis*, having the shape of a small Plum, whereunto it is transformed after its spinning time is past; in which state it lyes shut up, in hot Countries, for 14. or 15. dayes; in more temperate ones, 18. or 20. without any Food or Air, known to us. During which time this *Insect* leaves two Coats, both that of a *Worm*, whence 'tis changed into an *Aurelia*, and that of an *Aurelia*, whence it becomes a *Papilio* or *Butterfly*, in the *Theca* or *Cafe*. The third is, from an *Aurelia* to a *Butterfly*, coming out of the *Theca* with a head, leggs, and horns; for which passage it makes way by a whitish water, it casts upon the Silk, which moistning, and thereby in a manner putrefying it, the new creature thrusts out its head through the sharp end of the *Cafe*, by a Hole as big as its self. There is found no Excrement in the *Cafe*, but the two Skins onely, just now mentioned.

Before they begin to spin, and about the latter end of their feeding, they must, saith the *Author*, be often changed, and have Air enough, by opening the Windows of the Room, they are in, if it be not too ill Weather; else, saith he, the Silk that is in their Belly, will cause so extraordinary a heat in them, that it burns their gutts, and sometimes bursts them; and the same (being a substance that resembleth Gum or Burgundy Pitch) will putrefy and turn into a yellowish matter.

He maketh the best marks of their maturity for spinning to be, when they begin to quit their white Colour, and their green and yellow Circles, and grow of the Colour of Fleth, especially upon the tail; having a kind of *consistent* softness, shewing that they have something substantial in their Stomachs.

As for their *Working*, he gives this account of it, that the first day they make only a *Webb*; the second, they form in this *Webb* their *Cases*, and cover themselves all over with Silk; the third day, they are no longer seen; and the dayes following they thicken their *Cases*, always by one *end* or *thrend*, which they

never break off, themselves. This, he affirms, they put out with so much quickness, and draw it so subtle and so long, that, without an *Hyperbole*, the end or thread of every *Casse* may have two Leagues in length. He adviseth, that they must be by no means interrupted in their work, to the end, that all the Silk, they have in their bellies, may come out.

Some eight dayes after they have finished their Work, as many of the best *Casses*, as are to serve for seed, viz. the first done, the hardest, the reddest and best coloured, must be chosen, and put a-part; and all diligence is to be used to winde off the silk with as much speed, as may be, especially if the *Worms* have nimbly dispatched their work.

Here he spends a good part of his Book, in giving very particular Instructions, concerning the way of winding off the silk, setting also down the form of the Oven and Instruments necessary for that work, which is the painfulllest and nicest of all the rest.

Touching their *Generation*, he prescribeth that there be chosen as many male as female *Casses* ( which are discerned by this, that the males are more pointed at both ends of the *Casses*, and the females more obtuse on the ends, and bigger-bellied ) and that care be had, that no *Casses* be taken, but such wherein the *Worms* are heard rolling; which done, and they being come forth in the form of *Butterflies*, having four wings, six feet, two horns, and two very black eyes, and put in a convenient place, the males fluttering with their wings, will joyn and couple with the females, after that these have first purged themselves of a kind of reddish humour by the fundament: in which posture they are to be left from Morning ( which is the ordinary time of their coming forth ) till evening, and then the females are to be gently pulled away, whereupon they will lay their eggs, having first let fall by the Fundament another humour, esteemed to proceed from the seed of the males; but the males are then thrown away as useles. He adviseth, that if they be coupled longer then 9. or 10. hours, ( which they will be, and that sometimes for 24. hours together, if they be let alone ) either the female will receive very great hurt by it, or much seed will remain in her belly.

The seed at first coming out is very white, but within a day it becoms greenish, then red, at last by little and little gray, which colour it retains alwaies, the most coloured of an obscure gray, being the best; those grains, which never quit their whiteness, having no fecundity in them.

Each female emits ordinarily some 300. grains, more or less, some of them not being able to render them all, and dying with them in their belly. One ounce of seed will require an hundred pair of *Cases*, of as many Males as Females.

Care must be taken, that no Rats, Mice, Ants, or other Vermin, nor any Hens, or Birds, come neer the Seed, they being very greedy to eat them.

This is the substance of what is contained in this *French* Author, published at *Paris* on purpose to promote the *Making* of *Silk* there, as well as it is practised already in other parts of that Kingdom: which is represented here, to the end, that from this occasion the design, which the English Nation once did entertain of the *increasing* of *Mulberry-trees*, and the *Breeding* of *Silk-worms*, for the *making* of *Silk* within themselves, may be renewed, and that encouragement, given by King *James* of Glorious memory for that purpose (witness that *Letter* which he directed to the Lords Lieutenants of the several shires of *England*) and seconded by his *Most Excellent Majesty*, that now is, be made use of, for the honour of *England* and *Virginia*, and the increase of wealth to the people thereof: especially since there is cause of hope, that a *double Silk-harvest* may be made in *one* Summer in *Virginia*, without hindring in the least the *Tobacco-Trade* of that Countrey.

## *Enquiries concerning Agriculture.*

Whereas the *Royal Society*, in prosecuting the *Improvements* of *Natural knowledg*, have it in design, to collect *Histories* of *Nature and Arts*, and for that purpose have already, according to the several Inclinations and Studies of their Members, divided themselves into divers *Committees*, to execute the said design: Those Gentlemen, which do constitute the *Committee* for considering of *Agriculture*, and the *History* and *Improvement* thereof, have begun their work with drawing up certain  
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